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ABSTRACT

Designed to familiarize vocational educators with the purpose and objectives of the Tennessee Research Coordinating Unit (RCU), this handbook serves as a guide in developing researchable ideas and suggests procedures in writing research proposals. The handbook should be of interest to vocational instructors, teacher coordinators, guidance counselors, school administrators, university faculty and staff members, and members of the State Division of Vocational Technical Education. The major sections of this handbook are: (1) Purposes and Objectives of the RCU, (2) Objectives and Opportunities for Research, (3) Developing a Project Prospectus, (4) Proposal Format, and (5) Details of Submitting Proposals. (Author/JS)

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INFORMATION SERIES NO. 1

TENNESSEE

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Your Key To Easier Research

Tennessee Research Coordinating Unit for Vocational Education
State Department of Education
Division of Vocational-Technical Education
and
University of Tennessee
909 Mountcastle Street
Knoxville, Tennessee 37916

VT 013 285

ED052332

SPECIFIC OBJECTIVES

OF THE

TENNESSEE RESEARCH COORDINATING UNIT

1. To collect and disseminate--to appropriate audiences--information on progress and application of occupational research.

2. To stimulate and encourage occupational education research and to develop research activities in state departments, colleges and universities, local school districts and nonprofit educational organizations.

3. To coordinate occupational education research activities conducted by state departments, colleges and universities, local school districts and nonprofit educational organizations.

4. To conduct occupational education research and development projects.

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FOREWORD

This handbook is designed to (a) familiarize vocational educators with the purpose and objectives of the Tennessee Research Coordinating Unit for Vocational Education, (b) serve as guide in developing researchable ideas, and (c) suggest procedures in writing and submitting research proposals. The handbook should be of interest to vocational instructors, teacher-coordinators, guidance counselors, school administrators, university faculty and staff members, and members of the State Division of Vocational Technical Education.

Only through research and development activities of vocational educators can the needs and goals of the individual, the school and society be achieved. It is hoped that this handbook will serve as a guide for research and development activities directed toward the improvement of vocational education.

This publication is divided into four sections as follows: (1) explanation of the purpose and objectives of the research coordinating unit, (2) objectives and opportunities for research, (3) procedures for development of a research prospectus, and (4) procedures for submitting a formal research proposal.

PURPOSES AND OBJECTIVES OF THE RCU

Change comes slowly to the local classroom. The impact of research on classroom practices and curriculum re-orientation is just becoming apparent--usually in isolated cases. There is general agreement that well-planned strategies need to be developed which stimulate the adoption of proven practices at an accelerated rate. Various groups and organizations, including public and private agencies, the State Department of Education, colleges and universities and the research coordinating unit, have been expending resources to bring about desirable changes in the quanity and quality of vocational and technical education programs in the State of Tennessee. The agencies concerned with bringing about change in vocational-technical education have been hampered in their operations by lack of effective coordination among agencies and lack of clearly defined and well-stated objectives.

The information in this publication is designed to make clear the position and role of the RCU in the research and development process. The procedures outlined here should make research and the RCU a viable force in the development and expansion of occupational education in the State of Tennessee.

Research in occupational education has been greatly stimulated by the Vocational Education Act of 1963 and its ensuing amendments. As a result of the acceleration of research under this and other acts, there is a multitude of research data available to researchers, administrators, and local school personnel. A continuous, ongoing program to insure public awareness and understanding of research findings should necessarily be a major effort of the Tennessee RCU.

Problems which arise in initiating, administering, and evaluating vocational and technical education programs point to the need for continued efforts to identify researchable problems and to stimulate research directed at solving those problems.

Within the State of Tennessee, there exists a number of agencies with human and financial resources which can be brought to bear upon the problems facing vocational-technical education. However, with the urgency of program development facing vocational-technical education today, Tennessee can ill-afford duplication of efforts which are inherent when several agencies are concerned with the same or similar problems. There is an unquestionable need to coordinate the efforts of research and development agencies within the State.

Researchers in vocational-technical education have identified many situations which need hard data in order to intelligently select alternatives in problem solving. In addition, some of these problems have not been solved due to constraints upon human and financial resources within agencies concerned with vocational-technical education.

Purpose of the RCU

The primary purpose of the Tennessee Research Coordinating Unit is to effectively and efficiently bring about desirable changes in vocational-technical education and supporting programs in local schools, community colleges, universities, private colleges, and technical institutes, which will make quality vocational education programs available to all who need and can profit by them.

Specific Objectives

The purpose of the RCU will be accomplished through a four-point program concentrating on the broad areas of dissemination of research findings, stimulation of research, coordination of research activities and research itself. More specifically, the objectives are to:

1. Collect and disseminate--to appropriate audiences--information on progress and application of occupational research.

2. Stimulate and encourage occupational education research and development activities in state departments, colleges and universities, local school districts and nonprofit educational organizations.

3. Coordinate occupational education research activities conducted by state departments, colleges and universities, local school districts and nonprofit educational organizations.

4. Conduct occupational education research and development projects.

Organization and Structure

Still in the embryo stage, the organization and structure of the RCU will evolve as its role becomes more definitive. Essentially, the RCU is a cooperative effort, serving vocational education clientele in the University of Tennessee College of Education, the State Division of Vocational-Technical Education, private colleges, community colleges, technical institutes, and local schools.

The anticipated internal organization of the RCU may be shown schematically as in Figure 1.

The organization and personnel will not be installed all at once. Rather, as the program develops to meet the needs of vocational education in the State of Tennessee, functions and responsibilities of personnel will evolve accordingly. A continuous self-evaluation program will be carried out to maintain the most viable organization and structure.

The statewide advisory council of the RCU will be made up of selected people appointed jointly by the Dean of the College of Education and the State Director of Vocational-Technical Education.

The primary purposes of the Statewide Advisory Council shall be to:

1. Recommend policy regarding use of funds for occupational research and development.

2. Identify occupational research and training needs.

3. Evaluate the effectiveness of the RCU.

Ad hoc service area advisory councils will be established in each of the appropriate vocational service areas. The members of these councils will be selected from and by appropriate groups related to each service area. Their primary purpose shall be to make recommendations concerning occupational research and development needs in their respective areas.

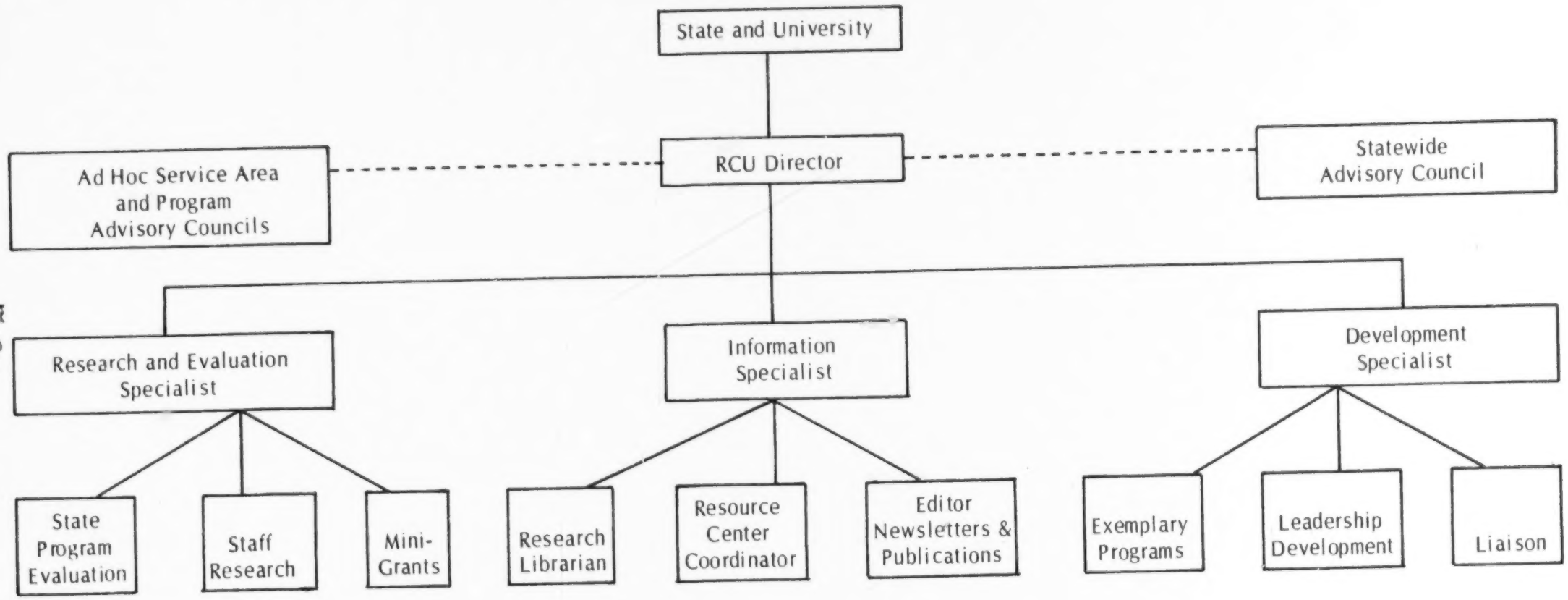

Figure I ---- Anticipated Internal Organization of the RCU

OBJECTIVES AND OPPORTUNITIES FOR RESEARCH

Research and development activities are funded by federal, state and private agencies for the support of vocational education in the State of Tennessee. The Vocational Education Act of 1963 and its amendments of 1968 stipulate that monies are to be available to states for funding:

> ...(i) research and training programs, (ii) experimental, developmental or pilot programs... designed to meet the special vocational needs of youth, particularly youth in economically depressed communities who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education programs and (iii) the dissemination of information derived from the foregoing programs or from research and demonstrations in the field of vocational education.[1]

Research projects as defined by the U. S. Office of Education should: (1) be research or research related activities, (2) show promise of improving education, (3) have general applicability, and (4) be directed toward communicable results.

Research and development is encouraged in all areas of vocational education. The U.S. Office of Education explains research projects as exploring educational needs or resolving issues; developing materials and methods or testing them in controlled situations, and testing programs for bringing about desirable educational change. Projects may analyze, consolidate or synthesize information from completed research, study curriculum development, produce new educational material, etc.

Opportunities for individual research and related research projects can be classified as formal research projects or mini-grants. The formal research projects can be grouped under five major areas: (1) research, (2) development, (3) training, (4) demonstration and (5) dissemenation. Proposals or projects should focus upon one of the preceding areas. The following is a general definition of each area accompained by examples for each one of the five areas.

I. Research: A careful search for accurate information that would expand or increase the knowledge and service of Vocational Education.

   A. Experimental - A test to discover and/or an attempt to solve problem areas in vocational education.

      Example:

      1. To determine the response of students toward a particular visual aid.
      2. To compare the value of lessons taught with stated behavioral objectives with lessons taught without stated behavioral objectives.

   B. Survey - To examine an area or subject in vocational education. While explaining the subject, the study should reveal "why" it is important to vocational education.

      Example:

      1. To survey physical equipment facilities in a vocational education department.
      2. To examine new techniques in teaching the disadvantaged youth.

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[1]Vocational Education Amendments of 1968, Public Law 90-576, Title I, Part C, Section 131, p. 2.

C. Predictive - To improve ability in forecasting future directions of vocational education.

Example:

1. To develop scales to predict possible increased enrollments in vocational cooperative programs.
2. To develop a plan or model to project job opportunities for Distributive Education students in the field of retail selling.

II. Development: To propose a study directed toward the growth and development of an area in vocational-technical education.

Example:

1. To develop curriculum guidelines, procedures and/or materials.
2. To propose and test new techniques and methods of instruction.

III. Training: Designing guides in which to enable vocational educators to meet vocational education objectives.

Example:

1. To develop and test types of seminars and workshops for vocational educators.
2. To design a model for in-service activities and procedures to follow in evaluating the program.

IV. Demonstration: To show or explain the value of a particular training program for curriculum, instructional methods, etc.

Example:

1. Classroom - Demonstrate the value of a team teaching situation.
2. Visual aids - To demonstrate the importance of visual aids to vocational educators and/or demonstrate visual aids to teachers, directors, etc.

V. Dissemination: A plan for distributing information and analyzing results of vocational education.

Example:

1. To develop a plan for disseminating data that would assist Home Economic teachers in updating their curriculum.
2. To design newsletters, new methods of obtaining responses from the educational community for surveys, developing simulation techniques, etc.

Funding of Projects

A mini-grant project is designed for a specific purpose or purposes. The RCU requests mini-grants to be submitted anytime from individuals. The funding limits for mini-grants is $500.00. The staff members of the RCU are willing to assist individuals or groups with any project or problem relevant to improving or assisting the growth of vocational education in the State of Tennessee.

For larger research and development projects funded by the State and RCU monies, proposal requests are sent to identified individuals, institutions and agencies. It should be noted however, that individuals, institutions and other agencies may request support directly from the United States Office of Education, Washington Office or the Regional Office in Atlanta.

DEVELOPING A PROJECT PROSPECTUS

Developing an Idea

Are you facing a dilemma today? That is, a dilemma of having an idea and not being able to see it materialize, with the reason being lack of sufficient time or funds, or not possessing the immediate knowledge of "where can I seek assistance with my idea." If so, this publication is intended to assist you in resolving part or parts of your dilemma.

The following steps suggest routes to follow in obtaining research assistance and should prove helpful in developing an idea:

1. Place idea in writing

2. Review published and unpublished research that is related to the idea. (RCU can help here)

3. Determine sincere interest in the idea.

4. The idea or problem should be stated completely on paper so it may be expanded and fully understood by you, the researcher. It should answer the following question: "Has a clear ring been drawn around the problem so it is clear what is included and what is left out"?

5. The decision needs to be made whether to continue developing the idea and seek additional information and assistance with it.

6. The Research Coordinating Unit, 909 Mountcastle Street, Knoxville, Tennessee, is available for consultation and general discussion with an applicant in relation to a research problem, or an applicant may decide to develop a prospectus for submitting to the RCU.

Therefore, the following steps should be followed in submitting a prospectus to the RCU (Note: The prospectus should be a maximum of five double-spaced typewritten pages.).

Developing A Prospectus

A "Cover Page" must precede the prospectus (Appendix A). It should include applicant's full name, his professional title, the organization with which he is affiliated, and telephone number including area code.

Statement of Problem

State clearly and precisely the problem or problem area in which the applicant will work. The problem should show significance to the field of vocational education.

Rationale

Describe the relevancy of the problem to vocational education and the need for it to be studied. Related research and publications need to be cited and they should be recent. This section needs to be stated so that at the end of the section you may say, "Therefore, we have set these objectives and will proceed in this manner."

Objectives

The objectives should be listed specifically and concisely so the reader can judge whether the procedures proposed for accomplishing the objectives are appropriate and adequate. The hypotheses and objectives should flow from the rationale. The applicant should be very concise and avoid excessive phrases and statements.

Methodology

A general description of the methods to be used in solving the problem needs to be presented. This might include types of groups or the type of setting to be studied, a brief statement regarding the design to be used in meeting the objectives of the problem, and, in addition, the applicant should define any unsolved major methodological problems.

Duration

The applicant should cite the beginning and ending dates of the project including number of calendar months for completion of the project. The dates should be based on the time required to conclude the actual work on the project.

Contribution to Vocational Education

This section should describe the importance of the study to vocational education today and in the future. A description needs to be given as to the individuals, or groups who would benefit from the analyzed results of the study.

Resources

The resources include the total dollars required to complete the study of the project. The following are normally reimbursable funds for projects:

Normally Reimbursable Funds For Projects

1. Personnel (list all position titles)
2. Employee Benefits (as Social Security benefits)
3. Travel (Indicate rates)
4. Supplies and Materials
5. Communications
6. Services
   a. Duplicating
   b. Testing
7. Final Report Costs
8. Equipment
   a. Rental
   b. Purchases (ordinarily not permitted)
9. Other Costs (list)

NOTE: In qualifying a project for funds, the prospectus should contain a list of names, titles and a brief statement of the qualifications of the personnel. The applicant should indicate any special facilities or resources available to enhance the work on the project. The procedures above are intended to save the applicant time and money before submitting a formal proposal.

The prospectus should be presented three months in advance of plans to submit a formal proposal. If the prospectus is accepted, the applicant may be asked to submit a proposal; if rejected, a written letter as to the reasons will be mailed to the applicant. However, if the applicant is asking for $500.00 or less, it is possible the prospectus could be accepted as the formal proposal.

PROPOSAL DOCUMENT FORMAT

A formal proposal should not be presented until a prospectus has been written and approved. The proposal must be submitted according to specification of this booklet or similar Tennessee guidelines for support in research.

The proposal should follow a standard format and include all information that follows:

A. Cover Page (Appendix A)

B. Abstract

C. Body of Proposal

1. Statement of Problem
2. Rationale
3. Review of Literature
4. Objectives
5. Methodology
   a. Design
   b. Population
   c. Time schedule
6. Dissemination Plan
7. Plan for Evaluation
8. Budget (Appendix B)
9. Personnel and Facilities

D. Appendix

1. Instruments
2. Agreements with cooperating agencies
3. Other Information

Three copies of the cover page should be signed by the appropriate persons. A total of six copies of the completed proposal must be submitted. Whether accepted or rejected, the applicant will be notified by mail or telephone.

ABSTRACT

The abstract should be the second page immediately following the cover page. The following information should be provided:

Title of Project
Principal Investigator or Project Director
Contracting agency or applicant organization
Total funds requested
Beginning dates and ending dates

In summary, the abstract should include:

(1) Objectives: Objectives of the proposal stated briefly and concisely.

(2) Methodology: A brief description of the plan and design of the project.

(3) Contribution to Education: Research is vital to the continued improvement of education. Therefore, concise statements should be made establishing the importance of your proposal to the field of Vocational Education. The project should implicate new programs for Vocational Education or develop methods to explain Vocational Education to individuals or groups presently not being adequately served.

BODY OF PROPOSAL

Statement of Problem

The statement of the problem should establish exactly your plans and objectives for the proposal. The problem area needs to be well phrased and stated to relay concise meaning. The statement of the problem and its comprehension by the reviewing committee largely determines whether the proposal is approved or rejected.

Rationale

Describe the relationship of the problem to vocational education and the need for the problem to be studied. The following questions and answers to them could serve as a guide in determining and understanding the rationale.

		YES	NO
1.	Is the problem stated clearly?	___	___
2.	Does it have good implications for the field of education?	___	___
3.	Does the proposal flow in a logical order?	___	___
4.	Is there a sufficient amount of data (both primary and secondary) available for the problem?	___	___
5.	Can a definite conclusion be reached at the completion of research?	___	___
6.	Is it proper time for the research?	___	___

7. Does the applicant have sufficient interest and ability to finish the problem? ___ ___

8. Is the problem such that cooperation can be obtained in completing the research? ___ ___

9. Is the problem such that it can be conducted within the needed time? ___ ___

10. Is the problem designed to study the population intended in the original statement of the problem? ___ ___

11. Are the objectives of the problem stated specifically, and do they establish a rationale to follow in reaching conclusions? ___ ___

12. Is the problem designed to acquire and interpret the data accurately? ___ ___

13. Is the problem designed to be completed in the available facilities? ___ ___

Review of Literature

An explanation of material and related material to the problem needs to be stated. This material should include background information to the problem, pertinent research related to the problem, and data significant to the problem. In many studies an alternate method or procedure can be considered for the study; if so, it should be so cited in the review of literature section. The method or procedure the applicant chooses must be supported as to why the method was chosen for this particular project.

Objectives

A list of objectives needs to be proposed in a concrete, concise and specific manner. The objectives should serve as a guide for the entire research project and should be listed in such a way as to determine whether the methods and procedures proposed for accomplishing the objectives are adequate and appropriate. The objectives can be in the form of questions to be answered, products to be developed, number of people to be studied. Therefore, the objectives should present a clear flow of thought from the statement of the problem and the rationale.

Methodology

Description of Procedures and Activities: This section explains the four W's of the problem: Who, What, When, and Why and includes how the problem will be conducted. It also provides information on design, population and time schedule of the intended research problem.

Methodology

This section of the proposal indicates what is to be done; how the proposed project is to be conducted. It provides information regarding the design, the population to be studied, time schedule of the proposed project, and procedure of interpreting relevant data.

1. Design: It may have different forms for different research problems: questionnaires, longitudinal study, or case study to mention three types. Therefore, a design to meet the desired results of the problem needs to be devised. The investigator needs to determine whether the design will meet the desired objectives of the project. The design should contain the type of information to be collected, types of instrumentation to be used, methods to be employed, and procedures to be used in reporting the results of the project.

2. Population: A description of the setting needs to be explained in relationship to the project. Include information as to types of people or groups to be studied. The type of population should be explained and how the population will be studied.

3. Time schedule: This section represents a time table for which major parts of the study should be completed. A time table could consist of one of the following: Flow charts, calendars, a personal schedule, or similar methods to satisfy the desired time of the project.

Methodology in Summary Form

a. The population, sample, and sampling procedures
b. Research design
c. The nature of the data and instrumentation
d. The time schedule
e. How data will be analyzed
f. What the end product will be

Dissemination Plan

A plan needs to be proposed as to the methods and procedures to be followed in making the analyzed results of the study known to the educational community. This plan should contain written articles, workshops, conferences and/or seminars to be conducted when the project has been completed. The project is invalid unless the educational population is made aware of the study and its results in terms of its usefulness to them.

Self-Evaluation of the Proposal

Upon completion of the formal proposal a critical analysis by the writer needs to be made. Because the review board has only a written document for approving or rejecting the proposal, the following questions should be answered in the final analysis of the proposal.

1. Is the proposal a critical question, or problem in Vocational Education? Not all good proposals can be granted approval because funds are limited or other serious pending problems.

2. Is the proposal worded to satisfy both the trained specialist and non-specialist in the field of research? The reviewing committee will consist of varied types of professionals related to the proposal.

3. Is the proposal written in enough detail? The proposal should be understood as a project worth investigating and be convincing as to the writer's ability to handle it.

4. Is the proposal written and planned for a logical and reasonable budget? Panels are eager to acquire new researchers as long as the project is manageable.

5. Is the proposal written in the prescribed format as found in this handbook?

6. Is the proposal written in a manner which stresses the important parts of the projects? Many times the proposal has to be approved under time pressures. Therefore, the outline of the proposal is a critical section for project approval.

APPENDIX

1. Instruments

   If the applicant plans to use a questionnaire or interview guide, please enclose a copy. If the instrument is to be developed, please enclose sample items and an outline of the instrument.

2. Agreements with Cooperating Agencies

   If the project is a cooperative one between two or more agencies, all persons or agencies involved should furnish evidence supporting the project.

3. Other Information

   Any information which the applicant feels would enhance the possibilities of approval of the project may be included.

DETAILS OF SUBMITTING PROPOSALS

1. The formal proposal should be submitted three months before the scheduled beginning date of the project.

2. The following signatures should appear on the proposal format page:

   a. Person responsible for developing proposal
   b. Person in charge of proposal
   c. Full name and position of the person committing the applicants' organization to the program.

3. Three separate copies of the cover page plus six completed copies of the proposal should be submitted to the Research Coordinating Unit, or Tennessee Division of Vocational-Technical Education.

   The address: Director
   Research Coordinating Unit
   for Vocational Education
   909 Mountcastle Street
   Knoxville, Tennessee 37916

   Assistant Commissioner
   for Vocational-Technical Education
   205 Cordell Hull Building
   Nashville, Tennessee 37219

4. Other sources of funding and information regarding research proposals may be explained to prospective applicants by the RCU and/or State Department of Vocational Education.

5. The proposal copies should be stapled at the left margin. Do not bind or enclose them in folders.

Contractual Arrangements

Agreements and funds provided a project will be discussed with the Director of the Research Coordinating Unit, 909 Mountcastle Street, Knoxville, Tennessee. This agreement of funds includes both a prospectus and a final proposal.

APPENDIXES

APPENDIX A

COVER PAGE

A PROPOSAL FOR RESEARCH AND/OR DEVELOPMENT ACTIVITIES
SUBMITTED TO THE TENNESSEE RESEARCH COORDINATING UNIT
FOR VOCATIONAL EDUCATION

TITLE OF PROJECT: (Be concise; avoid technical terms.)

APPLICANT ORGANIZATION: (Name and address of College or University, School District or other Unit.)

INITIATED BY: _____
(Signature)
(Full name of person responsible for developing the proposal, position, telephone extension, area code, number)

PROJECT DIRECTOR: _____
(Signature)
(Full name of person in charge of the program, position, telephone extension, area code, number)

TRANSMITTED BY: _____
(Signature)
(Full name and position of person committing the applicant organization to the program, telephone extension, area code, number)

DURATION OF PROJECT: (Proposed beginning and ending dates.)

TOTAL FUNDS REQUESTED: $_____ for first year

$_____ for second year

$_____ for duration of project.

DATE TRANSMITTED: _____

DATE PROSPECTUS APPROVED: _____.

APPENDIX B

BUDGET

Initiator _____ Duration of Project _____

Institution _____ Beginning Date _____ Ending Date _____

	Project Costs By Line Items		
	Federal	State	Local
I. DIRECT COSTS A. Personnel (List all position titles such as project director, secretary, research assistants, consultants*, etc. State percent of time on program, per annum salary, and beginning and ending dates of employment for each person.)			
B. Employee Benefits (Summarize benefits such as Social Security, retirement, etc.)			
C. Supplies and Materials 1. Project Materials 2. Office Materials			
D. Travel (Indicate fares and/or mileage at allowable rates: number of days per diem* and rate.)			
E. Communications			
F. Services 1. Duplication 2. Statistical 3. Testing 4. Other			
G. Final Report Costs			
H. Equipment (where allowable)			
I. Other Direct Costs (list)			
J. Subtotal, Direct Costs			
II. INDIRECT COSTS (Give basis on which local overhead is computed, who established the rate, when, and period covered.)			
III. TOTAL COSTS			
IV. COST SHARING (Give percent)			

*Consultants: Show rate and number of days under Personnel; show transportation and per diem under Travel.